



California Energy Commission 2005 Environmental Performance Report Land Use Topics

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2003 California Acreage Profile

- Total California acreage: 100,000,000 acres
- Federally owned or administered land: 50,000,000 acres
- Agricultural land: 23,500,000 acres
- Other land: 11,600,000 acres
- Water area: 670,000 acres
- Urban and Built-Up land use (rising by approx. 100,000 acres/year): 3,500,000 acres
- Electric generation facilities: 12,700 acres*
- Electric transmission facilities: 758,100 acres**



Approx. Land Acreages Converted by California Generation Facility Sites (1996 & 2002)

Type Of Facility	1996 Number Of Units	1996 Acreage	Number Of Units Added 1996-2002	Acreage Addition 1996-2002 (percent)	2002 Total Acreage
Oil/Gas	366	5,264	33	212 (4%)	5,476
Coal	15	201	0	0	201
Hydro ¹	386	900	0	0	900
Solar: (total)		2,035			2,035
- Thermal	8	2,004	0	0	2,004
- PV	5	31	Unknown	74 (238%)	104
Nuclear	2	353	0	0	353
Wind ²	89 farms	47	0	-6 (-13%)	40
Geothermal	45	422	0	0	422
WTE ³	105	1,086	Unknown	65 (6%)	1,151

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Land Use Findings

- 40% of 1996-2002 siting cases required some kind of local action such as a general plan amendment or zoning change
- Local/regional planning efforts seldom set aside land for energy infrastructure facilities such as power plants and transmission lines
- Rapidly growing areas - energy facility development/repowering often occurs very close to sensitive resources such as schools, homes, and parks



Community Land Use Issues

- How can local governments, which have control over land use decisions, effectively plan for new or repowered generation facilities and transmission line corridors?
- What is the best role for the Energy Commission in addressing energy infrastructure needs, given California's rapid urban growth?



Planned Staff Activities

- **Potential repowering of coastal power plants – initiate planning activities with Coastal Commission and Bay Conservation and Development Commission**
- **Implement 2004 Memorandum of Agreement with Coastal Commission on power plant siting review**
- **Work with local/regional governments to integrate consideration of power plants and related facilities (e.g., transmission lines) in the general plan process, using tools such as PLACES3S**
- **Collect land use data for energy facilities Commission licenses including tracking project consistency with local general plans and zoning**



PLACES3S Detail

- PLACES3S is a computer program which enables urban growth, land use and transportation system choices by members of the public and local decision makers. The Commission staff is currently working on options for an energy infrastructure module that would make local planning for generation, transmission and pipeline facilities easier and more explicit.
- PLACES3 was instrumental in establishing the Sacramento Area Council of Governments (SACOG) national award winning Sacramento Blueprint process. The Blueprint approach used Geographic Information System (GIS) technology to address future growth scenarios and environmental implications in the Sacramento region.